Magnatech LP

Connecticut State Technology Extension Program

Magnatech Adopts Lean and Reduces Inventory

Client Profile:
Magnatech's major product -- systems for orbital tube, pipe and tubesheet welding operations -- serve the aerospace, chemical, pharmaceutical, power generating and pipeline industries. The equipment utilizes three widely employed welding processes: gas tungsten arc welding, gas metal arc welding, and flux core arc welding. The company employs 32 people at its facility in East Granby, Connecticut.

Situation:
Magnatech had redesigned their product line but did not have the infrastructure in place to support the business growth they were experiencing. Orders were doubling and delivery was rarely on time. Garry McCabe, Executive Vice President, noticed that the area set aside for inventory storage began to increase, a result of an inventory system which was based on anticipated sales, adding considerable expense to the company's products. McCabe learned about the Lean program through the Connecticut State Technology Extension Program (CONNSTEP), a NIST MEP network affiliate, newsletter, the Manufacturers' Advantage. He contacted Ray Snyder, CONNSTEP's Manager of Quality Standards, who had previously helped Magnatech prepare for the ISO9001-2000 quality standard and asked for CONNSTEP's help in preparing a continuous improvement plan that would meet the company's immediate and long-term goals.

Solution:
CONNSTEP's Business Development Manager, George Snyder, saw the opportunity to help make a significant impact on Magnatech's business. Bill Kirchherr, a CONNSTEP Lean Manufacturing expert, facilitated the Lean project and became intimately involved as a key participant in the continuous improvement planning process. A team was enlisted, comprised of Magnatech's production planner, the manufacturing manager, two lead manufacturing foremen and the purchasing manager. The initial phases included the development of an inventory management process, integrated with forecasting needs to support the production of spares, as well as warranty and repair requirements. Next, a plan was developed to address the production of catalog-based items, which could be shipped within an established period while maintaining on time delivery of new business. An approach for developing a supply chain co-managed spare parts inventory was also addressed. The next portion of the work was to be directed at maximizing inventory turns and developing methods to reduce the time and effort required to convert the inventory to finished product. The final part of the project would provide designs for work cells with visuals and instructional aides for kitting, a disciplined scheme for purchasing materials and stocking parts and the introduction of a Kanban system.

Results:
* Increased sales by 200 percent.

* Reduced inventory by 55 percent.
* Increased inventory turns from 1 to 5.
* Achieved 100 percent on-time delivery.
* Created 12 new jobs.
* Projected sales increase of 58 percent.

Testimonial:
"These improvements can only be attributable to the efficiency gains derived from CONNSTEP teaching us the principals of Lean in that we made optimal use of inventory and labor. What I particularly appreciate is the degree of involvement shown by the CONNSTEP facilitator in that he participated as though he had the same investment in our future as any employee."

Garry McCabe, Executive Vice President